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At the start, all patients are in class III or IV. The risks of hospitalization, death and change in class are considered on a monthly basis, depending on current NYHA class. Hospitalizations and deaths are accumulated over 1 year and survival is quality-adjusted according to class. Direct medical costs of treatment, hospitalizations and deaths from a third-party payor perspective are reported in 2002 Canadian dollars. **RESULTS:** In 1,000 patients (class III: 19%, IV: 81%), treating anemia improves severity (class I: 4%, II: 61%, III: 19%, IV: 15%), whereas without treatment there is deterioration: class III: 13%, IV: 87%. Over one year, this results in avoidance of 108 hospitalizations and 24 deaths, increased survival of 142 months (a 51% increase in quality-adjusted life-months) and savings of over $1.2 million. Treatment with erythropoietin and intravenous iron will cost on average $3,680 per year per patient. Thus, improving one patient from class III or IV to I or II costs $4,380, a cost-effectiveness ratio of $13,620 per QALY. **CONCLUSION:** The enormous improvement in NYHA class with anemia treatment in CHF would result in very cost-effective improvement in quality of life and in survival.

PCV27

COMPARING RESOURCE USE INTENSITY IN THREE POPULATIONS WITH ATHEROTHROMBOSIS

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OBJECTIVE: It is well recognized that major atherothrombotic events are associated with substantial resource use, translating to significant economic burden. The impact of peripheral arterial disease (PAD) is less clear. In this study, we described the resource use associated with a diagnosis of PAD relative to stroke and myocardial infarction (MI). **METHODS:** Hospitalization records were examined for 16,440 patients diagnosed with PAD in Saskatchewan, Canada between 1985–1995, and compared to records for patients suffering a stroke (18,704) or MI (15,590) between 1990–1995; all followed to December 2000. Hospitalization rates for any cause, cardiovascular disease (CVD) and bleeding events in the five years following diagnosis were estimated and compared across diagnoses. **RESULTS:** Approximately half of PAD (45%) and stroke (52%) patients and 36% of MI patients are female. Mean age ranged from 67–70 years of age across groups. Overall, between 73% and 86% of patients were hospitalized at least once, with the PAD group experiencing the greatest frequency (mean = 5.2, sd = 5.0) compared to MI (4.8, 4.5) and stroke (3.9, 3.9). In year one, rates of all-cause hospitalization were 0.86, 1.08, and 0.85 per patient year (PY) for PAD, MI, and stroke, respectively; for CVD hospitalization they were: 0.17, 0.35, and 0.21 per PY. In year two, the rate of all-cause hospitalization was highest for PAD patients (0.62 vs. 0.58 per PY for stroke and MI) and remained above or equal to that for MI and stroke in years three, four, and five. Similar patterns were observed for CVD hospitalizations, while rates for bleed-related hospitalizations were essentially equivalent. **CONCLUSIONS:** A diagnosis of PAD is associated with substantial resource utilization comparable to that observed among patients suffering a major atherothrombotic event. The economic implications of a PAD diagnosis ought to be taken as seriously as that of MI and a stroke.

PCV28

PERSISTENCE WITH ANTIHYPERTENSIVE DRUG TREATMENT: AN EVALUATION BASED ON A BAYESIAN COST-EFFECTIVENESS APPROACH

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OBJECTIVE: To compare five choices to initiate antihypertensive pharmacotherapy as a function of persistence with treatment and drugs cost. **METHODS:** An administrative database, held by the Local Health Unit of Ravenna, recording pharmacy claims was used to perform an observational study of patients receiving antihypertensive drugs for the first time. All new users, 20 years-old or over, receiving a prescription for amlodipine, atenolol, fosinopril, indapamide or losartan between January 1st, 1997 and December 31st, 1997 were enrolled. The follow up period lasted 365 days. A bayesian cost-effectiveness analysis based on Markov Chain Monte Carlo simulations was performed. Persistence with treatment (a duration of therapy on any antihypertensive drug more than 273 days) at a correct dosage (within the therapeutic range recommended by the JNC VI) was assumed as a proxy to define effective therapies. Drugs cost was evaluated at NHS purchase prices. **RESULTS:** A total of 4614 subjects was enrolled (22.8% on amlodipine, 44.0% on atenolol, 18.8% on fosinopril, 6.7% on indapamide, and 7.8% on losartan). The annual average cost of treatment ranged between €44.27 (95% CI 38.18–52.06) for those started on atenolol to €175.65 (95% CI 150.37–205.10) for those started on losartan. The average probability of an effective antihypertensive treatment ranged from 8.40% for those initiated on fosinopril to 18.36% for those initiated on losartan. As a consequence, the choice to initiate antihypertensive treatment on losartan displayed a probability of being more cost-effective equal to 0.99 compared to fosinopril, 0.94 to amlodipine, 0.84 to indapamide, and 0.75 to atenolol. **CONCLUSION:** The low reproducibility of findings from experimental studies to clinical practice should encourage health care providers to account and assess both resources and associated outcomes in a "real world" setting: the availability of a linkage between these variables could affect the cost-effectiveness of selected choices.